The Learning Company™

Number Stumper™

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ABOUT THE AUTHOR

Dennis Sorensen — father, entrepreneur, community leader, and programmer — is the designer and programmer of Number Stumper. During his career, Sorensen has worked as an IBM systems engineer and as a software developer for international organizations such as Crocker Bank. Fatherhood inspired him to create children's educational software that is both visually exciting and easy-to-use. Sorensen's undergraduate degree, magna cum laude, is in computer science.

Number Stumper

Number Stumper runs on:

- ☐ Apple II, 48K with Applesoft
- ☐ Apple II+, 48K
- ☐ Apple IIe

With:

- ☐ Disk] [
- ☐ Monitor or TV (color recommended)

For:

- ☐ Ages 6-10

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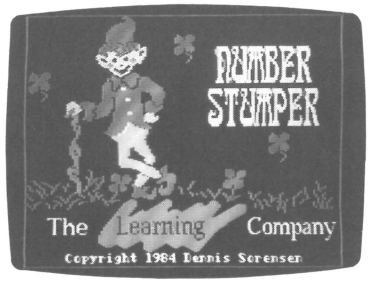
WELCOME TO NUMBER STUMPER



Meet O'Leary, a happy-go-lucky leprechaun who loves to play games. He will show you how to play games with his lucky dice. The dots on his dice will help you learn to count. And you'll learn to add and subtract numbers, too. This is something you can use almost everyday.

By playing the games, you'll discover new ways to add and subtract numbers. And you'll learn a very clever trick: how to add and subtract numbers in your head — without paper and pencil! O'Leary makes it as easy as 1, 2, 3.

If you have never played Number Stumper before, start at the beginning. The first game is the easiest one to play. The other ones get harder. Play each game in order so you can learn everything step-by-step.

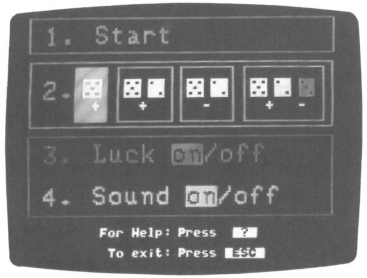
P.S. Some people think that Number Stumper is just for fun. To see what you are learning, turn to THE LEARNING LIST on page 16.

GETTING STARTED

Put your Number Stumper disk in the disk drive and close the door. Turn on the computer.

CHOOSING A GAME

After the opening picture, you will see the "menu." Number [2] shows you that there are four games. If you have never played Number Stumper before try the first game. Just press [1] to start this game.



Do you want to play the second game? Press [2] to move the blue box to the two-dice adding game. By pressing [2], you can choose any of the four games. When you've moved the blue box to the game you want, press [1] to start.

LUCK OPTION

Number 3 shows that O'Leary has turned on the luck machine to help you win games. Do you want to take your chances? Press [3] to turn the luck machine from "ON" to "OFF." Press [3] again to turn the luck machine back on.

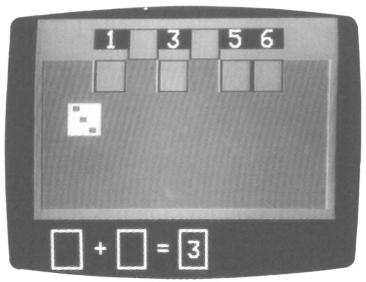
SOUND OPTION

Number 4 shows you that the sound is turned on. If you want to turn it off, press [4]. The pink box will move from "ON" to "OFF." Press [4] again to turn the sound back on.

After you have pressed [1] to start a game, you can still turn the sound on or off. Hold down [CTRL] (or [CONTROL]) and press [G].

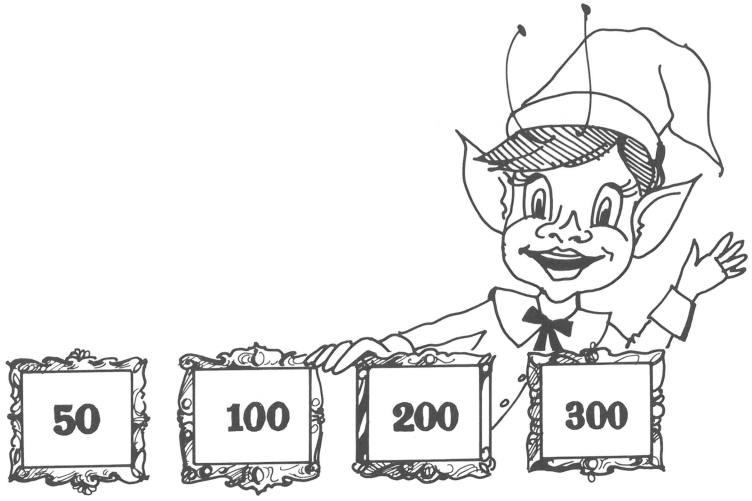
THE GAMES

O'Leary has four different games for you to play. In each game, you'll use O'Leary's lucky dice to work with numbers and win gold coins. You will need to pick numbers to add or subtract. These numbers are at the top of the screen.



Every time you pick a number, a door swings up and hides it. You can use each number only once. Zero is a free number you can use anytime you want to. When the game is over, O'Leary adds up all the numbers behind the doors. That's how many gold coins you've won.

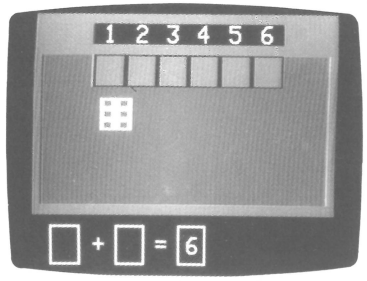
Can you close *all* the number doors? If you can, your gold coins will pile up fast. After you have won 50 or more, O'Leary will let you save your gold coins or spend them. You can save them from game to game, if you want to. Or you can spend them on prizes. O'Leary keeps the prizes behind four secret doors. There are different surprises behind each door. Can you save 300 or more gold coins? If you can, you have a chance of seeing O'Leary. See page 15 to find out how to get prizes or save your coins.



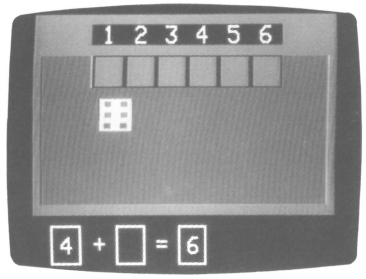
1. O'LEARY'S LUCKY DIE (One Die Adding)

O'Leary rolls one lucky die across the screen.

- ☐ Count the dots on the die.
- ☐ Type the total in the answer box under the gameboard.



- ☐ Choose two, three, or four numbers that add up to the total in the answer box. REMEMBER: You can use each number on the gameboard only once. You can use zero as often as you need.
- ☐ Type your numbers in the equation boxes under the gameboard. As you do, you will notice:
  - — The dots on the die turn orange, and
  - — Your numbers appear in the equation boxes.

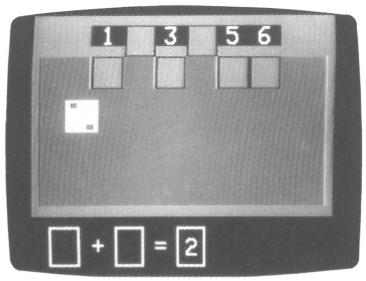


- ☐ If this doesn't happen, try another number.

- If you want to type in three or four numbers, O'Leary will give you extra equation boxes.

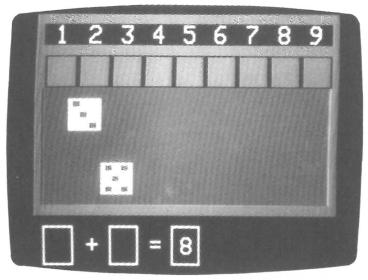
- If you want to erase a number, press [←]. O'Leary will erase it for you.

What do you do when the only numbers that will work are already behind closed doors? Just press [RETURN]. That tells O'Leary the game is over. He will tell you what to do next.



2. DOUBLE DOTS (Two Dice Adding)

This time O'Leary rolls two lucky dice across the screen.

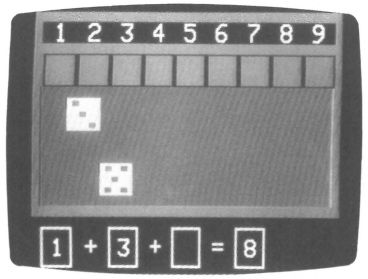


- Count the dots on both dice.

- Type the total in the answer box at the bottom.

- Pick two, three, or four different numbers that add up to the total in the answer box.

- Type your numbers one at a time in the equation boxes at the bottom. When you need an extra equation box, O'Leary will give it to you. Watch the dots on the dice change color.



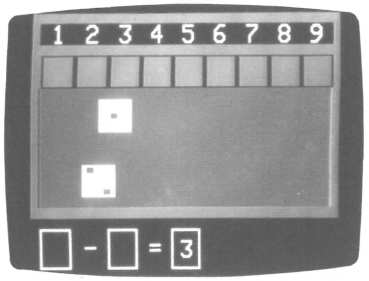
- To erase numbers, press [←].

- Can you get all the number doors closed? If not, tell O'Leary to polish his dice!

If all the numbers you need are behind closed doors, press [RETURN]. That tells O'Leary you are finished with this game.

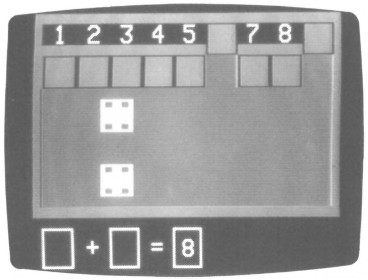
3. CHANGE-ABOUT (Two Dice Adding and Subtracting)

O'Leary has changed things about! Now you can add and *subtract* numbers.



- Add up the dots on both dice.
- Type the total in the answer box at the bottom.
- Pick two different numbers. Subtract one number from the other. The answer must equal the total in the answer box.

  For example, O'Leary rolls a 5 and a 2; the total number of dots on the dice is 7. The numbers you pick to subtract might be 8 and 1 (8 - 1 = 7), 9 and 2 (9 - 2 = 7), or 7 and 0 (7 - 0 = 7).
- Type your numbers one at a time in the equation boxes at the bottom. When you are subtracting, be sure to type your numbers in the right order.
- Are there no numbers you can subtract to get the total? Change-about to adding! Press [SHIFT] and [+] together. This changes the minus sign to a plus sign. Now find two, three, or four different numbers that *add up* to the number in the answer box.

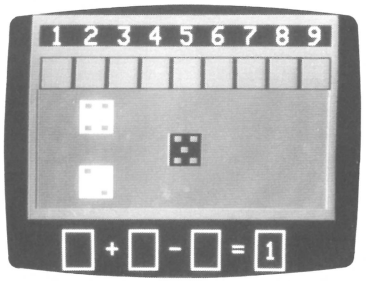


- To return to subtraction, press [-], the minus key.
- O'Leary will give you an extra equation box only when you are adding.
- To erase numbers, press [←].
- Keep trying to get all the number doors closed. Ask O'Leary for some good luck!

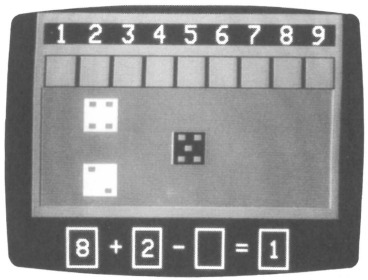
Press [RETURN] if you run out of numbers that will work. O'Leary is waiting with another game for you.

4. *NUMBER MAGIC (Three Dice Adding and Subtracting)*

First O'Leary rolls out two dice. Then he rolls out his favorite die of all. It's special because it is black, not white. This die can only be subtracted from the total of the other two dice.



- Add the dots on the first two dice. Then subtract the dots on the black die.
- Type the total in the answer box at the bottom.
- Find the three missing numbers in the equation. You need two numbers to add and then one to subtract. The answer must equal the number in the answer box. You can use zero more than once, if you want to.
- Type your numbers one at a time in the right order. Take your time. O'Leary's prizes won't go away!



Are all the numbers you need behind closed doors? Press RETURN to tell O'Leary you want to play again.

HOW TO GET PRIZES OR SAVE COINS

After you have earned at least 50 gold coins, you will see this screen:

The four squares with numbers on them are O'Leary's secret prize doors. He hides different prizes behind them. How many prizes can you win?

When you see this screen, you have two choices:

- You can "open" the pink door and get a prize, or
- You can save your coins. Then, as you play more games, you can earn more coins. Coins accumulate even if you change games. With more coins you can open doors with higher numbers. If you save 300 or more coins, you can open the door marked 300 and see O'Leary himself!

To "open" a door and get a prize: Press SPACEBAR.

To save your coins: Press RETURN.

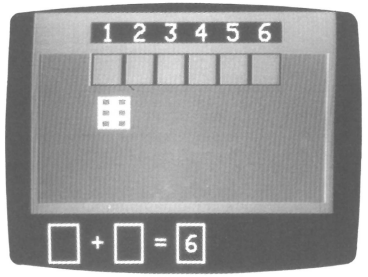
When you have told O'Leary to give you a prize or to save your coins, he will tell you what to do next.

THE LEARNING LIST

Number Stumper provides children with a playful and exciting way to explore many important math skills. Each game builds on the skills from the game before it.

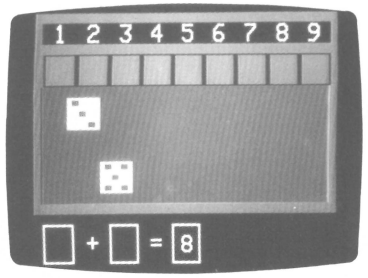
GAMES	CONCEPTS AND SKILLS PRESENTED

1. O'LEARY'S LUCKY DIE (One Die Adding)



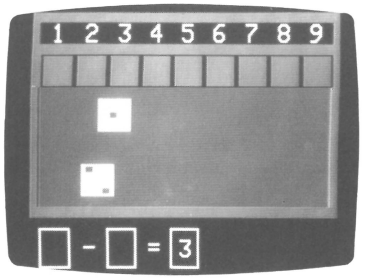
- ☐ Counting numbers from 1 to 6.
- ☐ Adding numbers from 1 to 6.
- ☐ Associating numbers of dots with the corresponding numerals.
- ☐ Identifying number pairs that total a given number.
- ☐ Recognizing multiple solutions.
- ☐ Developing the ability to add numbers mentally.
- ☐ Discovering the game strategy.

2. DOUBLE DOTS (Two Dice Adding)



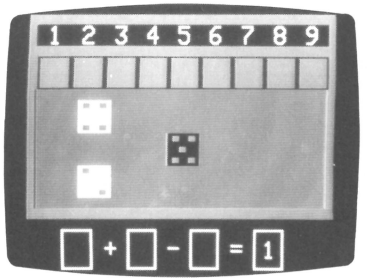
- ☐ Counting numbers from 1 to 12.
- ☐ Adding numbers from 1 to 12.
- ☐ Associating numbers of dots with the corresponding numerals.
- ☐ Identifying number combinations that total a given number.
- ☐ Recognizing multiple solutions.
- ☐ Developing the ability to add numbers mentally.
- ☐ Discovering the game strategy.

3. CHANGE-ABOUT (Two Dice Adding and Subtracting)



- ☐ Adding and subtracting numbers from 1 to 12.
- ☐ Identifying two numbers which, when one is subtracted from the other, equal a given number.
- ☐ Solving one-step equations.
- ☐ Recognizing multiple solutions.
- ☐ Discriminating when to change the operation from subtraction to addition.
- ☐ Developing the ability to add and subtract numbers mentally in one-step equations.

4. NUMBER MAGIC (Three Dice Adding and Subtracting)



- ☐ Adding and subtracting numbers from 1 to 12.
- ☐ Identifying three numbers which, when one is subtracted from the sum of the other two, equals a given number.
- ☐ Solving two-step equations.
- ☐ Recognizing multiple solutions.
- ☐ Developing the ability to add and subtract numbers mentally in two-step equations.

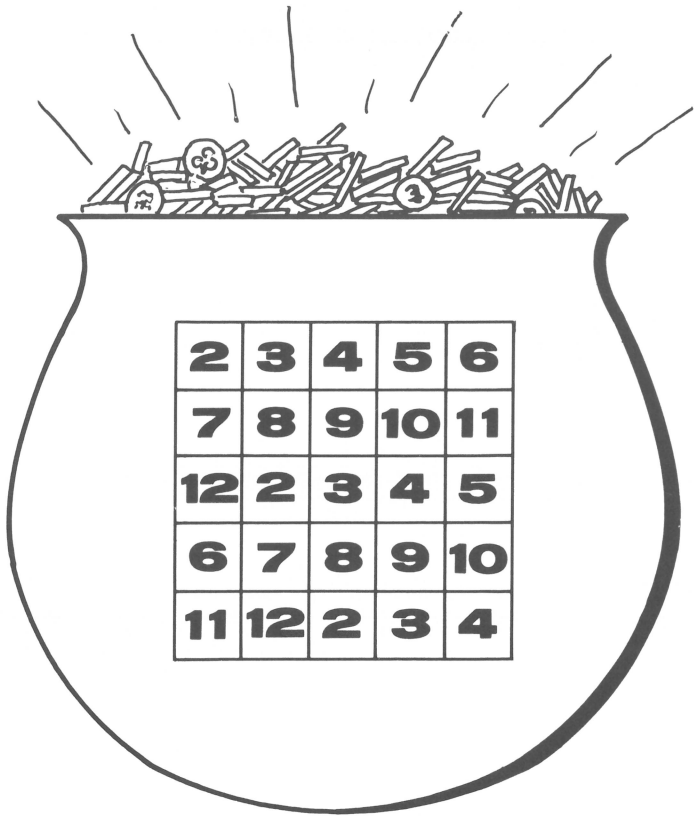
ADDITIONAL ACTIVITIES

DICE BINGO

Dice Bingo is a game for two or more players. All you need are a pair of dice, a crayon or colored pencil, and bingo cards. You can copy the bingo card below or draw one like it on a piece of paper. Make one for each player.

The first player rolls the dice and adds up the dots. Then the player colors in one of the squares on the bingo card that has that number in it. The next player does the same thing. Continue taking turns. (If the number you roll has already been colored in, you lose your turn and the next player rolls.)

The first player who colors in a whole row of five numbers — across, down, or sideways — wins the game.



ROLL AWAY

Ask a friend to play this game with you. You need a pair of dice and paper and pencil to record the score.

Your friend rolls the dice first and adds the dots. Ask your friend to remember the total number of dots on the dice. Now you roll the dice and add the dots. Who rolled the highest number? The winner must now subtract the other player's number of dots from the winning number to get the score. Write this number under the winner's name on a score sheet that looks like this one. For example, if your friend rolls 6 and you roll 8, your score is 2 (8 - 6 = 2). Write "2" under your name for Roll 1.

	PLAYER 1	PLAYER 2
Roll 1		
Roll 2		
Roll 3		
Roll 4		
Roll 5		
Roll 6		
Roll 7		
Roll 8		

Keep taking turns rolling the dice and recording the score. Add up the score after each roll. The first person to score 18 or more is the winner.

Variation 1:

This is a fast and easy game.

First pick any number from 2 to 12. Take turns with a friend rolling the two dice. Add up the dots on both dice on every roll. The first player who rolls the number that was picked shouts, "ROLL AWAY!" Now pick another number and play again.

Variation 2:

Can you find a die that's a different color than your other two dice? Then you and a friend can play this game.

The first player rolls the three dice. Then the player adds the two dice that are the same color and subtracts the die that's a different color. Write this number on a score sheet. The next player does the same thing. Continue taking turns.

Sometimes, the dice that are added are less than the number shown on the different-colored die. So you cannot subtract. When this happens, the player loses a turn and the next player rolls.

The first player to score 18 or more wins the game.

SPECIAL KEYS

KEY	DESCRIPTION
ESC	Returns you to the menu.
SPACEBAR	Lets you skip the opening music.
RETURN	Ends the game when you run out of numbers before closing all the number doors.
←	Lets you erase a number you typed when playing a game.
?	Gives you instructions about the menu or the game you are playing. You can get help anytime by pressing ?.
CTRL G or CONTROL G	Turns the sound on or off when you are playing a game. Press the control key and G at the same time.
SHIFT +	Changes the equation from subtraction to addition in CHANGE-ABOUT. Press SHIFT and + at the same time.
−	Changes the equation from addition to subtraction in CHANGE-ABOUT.

MORE FROM THE LEARNING COMPANY

READING

JUGGLES' RAINBOW Children develop reading and math readiness skills by playing with dancing rainbows, butterflies and windmills. Ages 3-6.

READER RABBIT AND THE FABULOUS WORD FACTORY A playful, mischievous character in a bustling factory will inspire children to develop pre-reading and early reading skills almost overnight. Ages 5-7.

WORD SPINNER Reading becomes like a ride in an amusement park as children spin through the alphabet and learn the building blocks of reading — making three- and four-letter words. Ages 6-10.

MAGIC SPELLS Children sharpen spelling skills through an adventure world of castles, demons and wizards. Ages 6-10.

MATH

BUMBLE GAMES With Bumble, a friendly creature from the planet Furrin, children learn fundamental math skills and create computer graphics. Ages 4-10.

BUMBLE PLOT Children learn advanced math skills and create computer graphics by plotting positive and negative numbers. Ages 8-13.

ADDITION MAGICIAN Magical walls and an absent-minded magician teach fundamental addition skills and encourage flexible thinking about adding. Ages 6-10.

LOGIC AND PROBLEM SOLVING

GERTRUDE'S SECRETS While solving playful puzzles with Gertrude, the go-getter goose, children develop logical thinking skills. Ages 4-10.

GERTRUDE'S PUZZLES Children develop abstract thinking skills by solving complex logic puzzles in Gertrude's animated world. Ages 8-13.

MOPTOWN PARADE Children learn thinking and problem-solving skills by strategically arranging colorful Moppet characters. Ages 6-10.

MOPTOWN HOTEL In the fantasy world of Moptown, children learn to hypothesize and develop strategic thinking skills. Ages 9 and up.

ROCKY'S BOOTS Learn the basics of computer logic and circuitry by designing machines using simulated logic elements. Play 39 games or create your own. Ages 5-7.

ART

COLORASAURUS A brand new type of coloring book for young artists — children learn about colors, hues and matching. Ages 3-6.

TLC programs are available for major personal and home computers. Check with your dealer for product availability.